CLAIMS

1. Compounds of formula I

$$Z \longrightarrow X_1 \longrightarrow X_2 \longrightarrow R^1$$

$$X_1 \longrightarrow X_2 \longrightarrow R^2$$

$$X_1 \longrightarrow X_2 \longrightarrow R^2$$

5 wherein:

25

 X_1 is N and X_2 is C or X_1 is C and X_2 is N;

Z is fluoro, chloro or cyano;

 R^1 and R^2 are independently selected from the group consisting of hydrogen, hydroxy, halo, C_{1-6} alkylhalo, OC_{1-6} alkylhalo, OC_{1-6} alkylhalo, OC_{1-6} alkyl OC_{1-6} a

 C_{0-6} alkylcyano, C_{0-6} alkylNR 4 R 5 and OC_{2-6} alkylNR 4 R 5 ;

 R^4 and R^5 are independently selected from the group consisting of hydrogen, hydroxy and C_{1-3} alkyl;

or salts, solvates or solvated salts thereof.

- 15 2. The compounds of claim 1 wherein X_1 is C and X_2 is N.
 - 3. The compounds according to any one of the preceeding claims wherein Z is fluoro or cyano.
- 4. The compounds according to any one of the preceding claims wherein R¹ and R² are selected from the group consisting of hydrogen, hydroxy, halo, -C₁-3alkylhalo, -C₁-3alkylhalo, -C₁-3alkyl, -OC₀-3alkyl, -C₁-3alkylOR⁴, -OC₂-4alkylOR⁴, -C₀-3alkylNR⁴R⁵; and R⁴ and R⁵ are independently selected from hydrogen, methyl and ethyl.

5. The compounds according to any one of the preceding claims wherein R¹ is fluoro, chloro, bromo, iodo, methoxymethyl, methoxy, difluoromethoxy, trifluoromethoxy, 2-methoxy-ethoxy, ethylamino or amine.

WO 2005/066155 PCT/US2004/041401

6. The compounds according to any one of the preceeding claims wherein \mathbb{R}^2 is fluoro or cyano.

- 7. Compounds selected from the group consisting of; 3-fluoro-5-[5-(5-fluoropyridin-2-yl)-2H-tetrazol-2-yl]benzonitrile, 6-[2-(3-cyano-5-fluorophenyl)-2H-tetrazol-5-yl]nicotinonitrile, 3-[5-(5-chloropyridin-2-yl)-2H-tetrazol-2-yl]-5-fluorobenzonitrile, 3-[5-(5-fluoro-pyridin-2-yl)-tetrazol-2-yl]-5-methoxymethyl-benzonitrile, 3-fluoro-5-[2-(5-fluoropyridin-2-yl)-2H-tetrazol-5-yl]benzonitrile, 10 6-[5-(3-cyano-5-fluorophenyl)-2H-tetrazol-2-yl]nicotinonitrile, 3-[2-(5-chloropyridin-2-yl)-2H-tetrazol-5-yl]-5-fluorobenzonitrile, 3-[5-(5-fluoropyridin-2-yl)-2H-tetrazol-2-yl]-5-(methoxymethyl)benzonitrile, 5-fluoro-2-[2-(3-fluoro-5-methoxyphenyl)-2H-tetrazol-5-yl]pyridine, 3-[5-(5-fluoro-pyridin-2-yl)-2H-tetrazol-2-yl]-5-methoxybenzonitrile, 15 3-[5-(5-fluoropyridin-2-yl)-2H-tetrazol-2-yl]-5-(trifluoromethoxy)benzonitrile, 3-(difluoromethoxy)-5-[5-(5-fluoropyridin-2-yl)-2H-tetrazol-2-yl]benzonitrile, 3-[5-(5-fluoropyridin-2-yl)-2H-tetrazol-2-yl]-5-(2-methoxyethoxy)benzonitrile, 3-(ethylamino)-5-[5-(5-fluoropyridin-2-yl)-2H-tetrazol-2-yl]benzonitrile, 3-amino-5-[5-(5-fluoropyridin-2-yl)-2H-tetrazol-2-yl]benzonitrile, 20 3-[5-(5-fluoropyridin-2-yl)-2H-tetrazol-2-yl]-5-iodobenzonitrile, and or salts, solvates or solvated salts thereof.
- 8. A pharmaceutical composition comprising as active ingredient a therapeutically
 effective amount of the compound according to any one of claims 1 to 7, in association
 with one or more pharmaceutically acceptable diluent, excipients and/or inert carrier.
 - 9. The pharmaceutical composition according to claim 8, for use in the treatment of mGluR5 receptor mediated disorders.
 - 10. The compound according to any one of claims 1 to 7, for use in therapy.

30

WO 2005/066155 PCT/US2004/041401

11. The compound according to any one of claims 1 to 7, for use in treatment of mGluR5 receptor mediated disorders.

- 12. Use of the compound according to any one of claims 1 to 7, in the manufacture of a medicament for the treatment of mGluR5 receptor mediated disorders.
 - 13. A method of treatment of mGluR5 receptor mediated disorders, comprising administering to a mammal, including man, in need of such treatment, a therapeutically effective amount of the compound according to any one of claims 1 to 7.
 - 14. The method according to claim 13, for use in treatment of neurological disorders.
 - 15. The method according to claim 13, for use in treatment of psychiatric disorders.
- 16. The method according to claim 13, for use in treatment of chronic and acute pain disorders.
 - 17. The method according to claim 13, for use in treatment of gastrointestinal disorders.
- 18. A method for inhibiting activation of mGluR5 receptors, comprising treating a cell containing said receptor with an effective amount of the compound according to claim 1.
 - 19. A process for making a pyridyl compound having a cyano substituent and a fluoro substituent comprising the steps of
- 1) treating the corresponding cyano amino pyridine with hydrogen fluoride in the presence of a suitable nitrate source and
 - 2) allowing the mixture to decompose to the desired product.

10

30

- 20. The process of claim 19 for making a pyridyl compound having a cyano substituent and a fluoro substituent comprising the steps of
- 1) treating the corresponding cyano amino pyridine with hydrogen fluoride in the presence of pyridine and sodium nitrite and

WO 2005/066155 PCT/US2004/041401

- 2) heating the mixture to induce in situ decomposition to the desired product.
- 21. The process of claim 20 wherein, in step 1 the 70% hydrogen fluoride-pyridine is used.
- 22. The process of claim 19-21 wherein the pyridyl compound is 5-fluoro-pyridine-2-carbonitrile.
 - 23. The process of claim 22 wherein the corresponding cyano amino pyridine is 5-amino-pyridine-2-carbonitrile.
 - 24. The process of claim 21-22 wherein the cyano amino pyridine of step 1 is combined with the hydrogen fluoride and cooled prior to adding the sodium nitrite and the reaction mixture was allowed to stir for 15 minutes to 1 hour at the cooled temperature followed by warming to room temperature, and in step 2 the reaction mixture was heated for approximately 1 hour.
 - 25. The process of claim 24 wherein in step 2 the reaction is heated to 80°C

10

15